

REMARKS

This amendment is responsive to the Office Action of November 10, 2010.
Reexamination and reconsideration of the application are respectfully requested.

The Office Action

Claims 1 and 3–10 stand rejected under 35 USC §112, second paragraph.

Claims 1, 3, 4, 6, and 10 stand rejected under 35 USC §103(a) as being unpatentable over Firner (US Patent No. 2,132,529).

Claims 3–10 stand rejected under 35 USC §103(a) as being unpatentable over Firner as applied to **claim 1**, pages 1–3 of the Specification, and further in view of www.comco-ikarus.de/ (2003).

Telephone Interview

Applicant thanks the Examiner for the telephone interview granted to attorney Brian Kondas on November 23, 2010. As discussed during the telephone interview, **claim 1** has now been amended to remove term "US Sport's Plane Category regulations" and move the phrase "MTOW of between 452.5 kg and 590 kg" from the preamble to the body of **claim 1**. As suggested in the Examiner's Response to Arguments section of the Office Action, Applicant believes this amendment put claims into condition for allowance.

35 USC §112

Claim 1 has been amended to remove the term " US Sport's Plane Category regulations." Therefore, the Examiner's objection to **claim 1** has been overcome.

Claim 3 recites "after a 20 cm long bevel." Therefore, "a 20 cm long bevel" is introduced in **claim 3** and, consequently, no antecedent basis is required. **Claim 3** has been amended to recite "a foot side." **Claim 3** has also been amended to recite "a final position" (instead of "the final position"). For these reasons, the Examiner's rejections involving **claim 3** have been overcome.

Claim 4 has been amended to recite "end zones" (instead of "the end zones"). Therefore, the Examiner's rejection involving **claim 4** has been overcome.

Claim 5 has been amended to remove the phrase "in the case of the presence of tubing struts." Therefore, the Examiner's rejection involving **claim 5** has been overcome.

For the reasons discussed above, **claims 1 and 3–10** meet the statutory requirements of 35 USC §112.

The Claims of the Present Application Distinguish Over the Cited References

Claim 1 recites an aeroplane of the ultra light class and sport plane category, having a maximum take-off weight (MTOW) of between 452.5 kg and 590 kg. The aeroplane includes a central tube, having at least a 200 mm diameter, extending along a longitudinal axis of the aeroplane. A space, limited on a lower side by a virtual flat cabin floor, has free remaining space above the virtual flat cabin floor presenting an orthorhombic space of at least 190 cm in length, at least 45 cm wide, and at least 40 cm in height for receiving a person lying on a stretcher for air-transporting of said person.

The aeroplane recited in **claim 1** provides a spacious cabin for allowing the transport of a person in a laying condition. Such construction is new and provides an aeroplane in this category for transporting a person in a laying position. Until now, there is no other plane of this category which allows for transporting a person in a laying position. If there is any other construction in this category of aeroplanes into which a laying person fits, it would only be for using the plane to sleep in it ON THE GROUND—never for flying with said laying person in it.

The attached printout from http://pilotfriend.com/experimental/spt_cat.htm provides additional background and description of the sport plane category. Some recent regulations may be seen at <http://beasportpilot.com/category/new-faa-rules/>.

In the Office Action, the Examiner has pointed to the IKARUS C42. However, the C42 would definitely not allow a person to be transported in a laying condition. The cabin is only useful as a two seater and there is no room for a laying person—even if that would be the only person in the cabin. As noted in the response filed July 2, 2009, the "IKARUS C42 has a passenger cell that is **essentially too short**...for transporting a person in lying condition therein."

Firner discloses an airplane construction. Applicant respectfully points out that the Firner reference is from the 1930's, at which time there was no airplane category comparable to the Sport's Plane Category. Firner fails to disclose, or even suggest, an airplane with an MTOW of between 452.5 kg and 590 kg, as recited in **claim 1**. Furthermore, any plane contemplated by Firner, or any other plane in the Sport's Plane Category, fails to disclose, or even suggest, an MTOW of between 452.5 kg and 590 kg in an aeroplane that includes a central tube, having at least a 200 mm diameter, extending along a longitudinal axis of the aeroplane, a space, limited on a lower side by a virtual flat cabin floor that has free remaining space above the virtual flat cabin floor presenting an orthorhombic space of at least 190 cm in length, at least 45 cm wide, and

at least 40 cm in height for receiving a person lying on a stretcher for air-transporting of said person, as recited in **claim 1**.

Others planes meeting the MTOW recited in **claim 1** have a much smaller cabin than recited in the claim. It is a constant struggle for designers to build a plane offering both an MTOW and orthorhombic cabin space of at least 190 cm in length, at least 45 cm wide, and at least 40 cm in height for receiving a person lying on a stretcher for air-transporting of said person, as recited in **claim 1**. It was not previously thought possible (particularly in the 1930's) to design an aircraft meeting all of the limitations recited in **claim 1**.

Although the Examiner (in paragraph 16 of the Office Action) pointed to several other references as disclosing small aircraft for accommodating a person laying on a stretcher, none of the references discloses, or suggests, an aeroplane of the ultra light class and sport plane category, having a maximum take-off weight (MTOW) of between 452.5 kg and 590 kg, with a central tube, having at least a 200 mm diameter, extending along a longitudinal axis of the aeroplane, space, limited on a lower side by a virtual flat cabin floor, having free remaining space above the virtual flat cabin floor presenting an orthorhombic space of at least 190 cm in length, at least 45 cm wide, and at least 40 cm in height for receiving a person lying on a stretcher for air-transporting of said person, as recited in **claim 1**.

The www.comco-ikarus.de/ reference discloses a C42 aircraft. However, neither the www.comco-ikarus.de/ reference nor the C42 aircrafts discloses or suggests a cabin cell long enough or wide enough for accommodating an orthorhombic space of the dimensions recited in **claim 1**.

For the reasons discussed above, **claim 1** and **claims 3–10**, which depend therefrom, are patentable over Firner, the Specification (IKARUS C42), and www.comco-ikarus.de/, either taken alone or in combination.

CONCLUSION

For the foregoing reasons, it is submitted that the claims of the present application are in condition for allowance. Early notice thereof is respectfully requested.

It is believed that there is no fee associated with the filing and consideration of this amendment. Should the Commissioner decide that any fee or fee deficiency is due, the Commissioner is hereby authorized to charge any and all such fees, and/or credit any overpayments, incurred as a result of entering this amendment to Deposit Account No. 03-0172, Order No. 30887.04002.

Respectfully submitted,

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Sport pilot / light sport aircraft in the USA

The sport pilot/light-sport aircraft rules create a new category of affordable aircraft--called light-sport aircraft--that will make the dream of owning an aircraft more accessible than ever before. It establishes two new airworthiness certification categories:

- ▼ A special light-sport aircraft (S-LSA); that is, aircraft sold ready-to-fly that may be used for flight training, rental, or personal flight, including personal flight instruction.
- ▼ An experimental light-sport aircraft (E-LSA); that is, aircraft sold in a kit form that may be used for personal recreational flight or personal flight training.

Many would-be aviation enthusiasts find the cost of current type-certificated, ready-to-fly aircraft too expensive for their budgets. The new special LSA (S-LSA) aircraft category offers an opportunity for such individuals to buy new, ready-to-fly aircraft at prices substantially less than what is available in the current ready-to-fly market.

Other enthusiasts, while attracted to some of the kit aircraft currently available in the experimental amateur-built class (which requires that the owner build 51-percent or more of the aircraft), simply don't have the time or perhaps the necessary skills to spend 500 to 1,000 hours over a period of years building an airplane. With the new experimental light-sport aircraft (E-LSA) certificate, they'll be able to purchase a more-completed kit that will require far less work than any currently available. Manufacturers may choose how complete a kit they wish to produce and sell.

Parameters of a Light-Sport Aircraft

To be defined as a light-sport aircraft, the aircraft must meet the following parameters:

- ▼ Maximum gross takeoff weight-1,320 lbs (599 kg.), 1,430 lbs. for water operation.
- ▼ Lighter-than-air light-sport aircraft maximum gross weight-660 lbs (300 kg.)
- ▼ Maximum stall speed-51 mph (45 knots)
- ▼ Maximum speed in level flight with maximum continuous power (Vh)-138 mph (120 knots)
- ▼ Two-place maximum (pilot and one passenger)
- ▼ Single, non-turbine engine only, including rotary and diesel engines
- ▼ Fixed or ground adjustable propeller
- ▼ Unpressurized cabin
- ▼ Fixed landing gear
- ▼ Repositionable landing gear for seaplanes allowing the wheels to be rotated for amphibious operation.
- ▼ Can be manufactured and sold ready-to-fly under a new Special Light-Sport (S-LSA) aircraft certification without FAR Part 23 compliance. Aircraft must meet ASTM (American Society of Testing and Materials, Int'l) consensus standards. Aircraft under this certification may be used for sport and recreation, flight training, and aircraft rental.
- ▼ Can be licensed Experimental Light-Sport Aircraft (E-LSA) if kit- or plans-built. Aircraft under this certification may be used only for sport and recreation and flight instruction for the owner of the aircraft.
- ▼ Can be licensed Experimental Light-Sport Aircraft (E-LSA) if it was kit- or plans-built and operated as an ultralight trainers.
- ▼ Application must be submitted within 36 months after the effective date of the rule.
- ▼ Will have FAA registration-N-number.
- ▼ Aircraft category and class includes: Airplane (Land/Sea), Gyroplane, Airship, Balloon, Weight-Shift-Control (Trike Land/Sea), and Powered Parachute (land/sea).
- ▼ U.S. or foreign manufacture of light-sport aircraft is authorized.
- ▼ May be operated at night by a private pilot if the aircraft is equipped per FAR 91.209 and the pilot holds a minimum of a third-class medical).

Standard Category Aircraft

Sport pilots may fly aircraft with a standard airworthiness certificate that meet above specifications. However, the airworthiness certification of the aircraft, and its maintenance requirements, will not be change.

According to the Type Certificates (TC's) and published specifications, the following standard category aircraft meet the definition of a light-sport aircraft (LSA) according to 14 CFR Part 1.1. However, individual aircraft of a given type may not meet the criteria due to modification by STC or field approval. The pilot would need to check the records of a particular aircraft and verify that it has not been modified in such a way as to disqualify that aircraft.

NOTE: This does not constitute an all-inclusive listing but does serve to cover the more common aircraft. There may be other standard category aircraft that meet the criteria for operation by sport pilots.

Landplanes:

Aeronca

C	C-2	C-3	PC-3	CF	K	KC	KCA
KF	KM	KS	50-C	50-F	50-L	50-LA	50-M
50-S	50-TC	50-TL	60-TF	65-C	65-CA	65-LA	65-LB
65-TAC	65-TC	65-TF	65-TAF	65-TL	65-TAL	YO-58	O-58A
O-58B	7AC	7BCM	7CCM	7DC	11AC	11BC	L-3
L-3A	L-3B	L-3C	L-3D	L-3E	L-3F	L-3G	L-3J
L-16A	L-16B						

Ercoupe

415-C	415-CD
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Interstate

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S-1A	S-1A-65F	S-1A-85F	S-1A-90F	S-1 Cadet
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Luscombe

8	8A	8B	8C	8D
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Piper

E-2	F-2	J-2	J-3	J3C-40	J3C-50	J3C-65
J3F-50	J3F-60	J3F-65	J3L	J3P	J4	J4A
J48	PA-11	PA-15	PA-17	L-4	L-4A	L-4B
L-4C	L-4D	L-4H	L-4J	NE-1	NE-2	

Porterfield

35	35-70	35V	CP-40	CP-50	CP-55	LP-65
FP-65						

Taylorcraft

BC	BC-65	BC12-65	8C12-0	BC12-01	BC120-85
BF	BF-60	BF-65	8F12-65	BL12-65	BC120-4-B5
BL	BL-65	OC-65	OCO-65	OF-65	OL-65
A	L-2	L-2A	L-2B	L-2C	L-2E
L-2F	L-2G	L-2H	L-2J	L-2K	

Seaplanes:

Aeronca

S-50-C	S-50-F	S-65-C	S-65-CA	S11AC	S11BC	S0-5BB
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Luscombe

BA	BC	BO
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Piper

J3C-50S	J3C-65S	J3F-50S	J3F-60S	J3F-65S	J3L-S	J3L-65S
PA-11S	J4A-S					

Taylorcraft

BCS	BCS-65	BCS12-65	BCS12-0	BCS12-01	BCS120-B5
BFS	BFS-60	BFS-65	BFS12-65	BLS12-65	BCS120-4-B5
BLS	BLS-65				

Aircraft which do not meet the definition of Light-Sport Aircraft

The following aircraft DO NOT qualify for operation by sport pilots because their gross weight, as originally certificated, is above the 1320 lb limit (1430 lb for seaplanes):

Make	Model	Gross Weight
Aeronca	7EC	(Note 1)
	11CC	1350
	LA	1680
	L8	1680
	LC	1680
	LCS	1852
Cessna	120	1450
	140	1450
	140A	1500
	150, 150A thru M	1500, 1600
	152	1670
Ercoupe	415D	1400
	415E	1400
	415F1	1400
	415F1A	1450
	A2	1450
	M10	1450

Funk	Funk B, C	1350
Interstate	S-1B1 (L-6)	1650
	S-1B2	1650
Luscombe	8E	1400
	8F	1400
	T-8F	1400
Piper	J4E (L-4E)	1400
	J5 (All)	(Note 2)
Porterfield	35W	1326
	75-C	1326
Taylorcraft	19	1500
	F19	1500
	F21	1500
	F21A	1500
	F21B	1750
	F22 (All)	1750
	L-2M	1325

NOTES:

1) Aeronca 7EC's are normally certificated at either 1450 or 1500 lbs gross weight, which disqualifies them for operation by sport pilots. However, there are some 7EC's certificated at 1300 lbs gross weight. These aircraft are eligible for operation by sport pilots.

2) Piper J5s, including military variants (L-4F, L-4G, HE-1, AE-1) are certificated as 3 place aircraft, which disqualifies them for operation by a sport pilot. The 1450 lb gross weight is also disqualifying.

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